

A collection of various fire alarm components laid out on a blue surface. The components include a large grey control panel with a keypad and a circular display, several white smoke detectors of different shapes, a large white sounder, a red fire alarm pull station, a red fire alarm reset button, a green printed circuit board (PCB) with multiple components, a black PCB with components, a white rectangular module, a small green PCB with components, and a large white circular sounder.

Product Overview

- **The Signature Series**

- **Highly intelligent fire detection and security devices consisting of:**

- **Intelligent Smoke and Heat Detectors**
 - **Intelligent Security and Access Control Modules**
 - **Intelligent Input/Output Modules**
 - **Advanced Tools and Accessories**



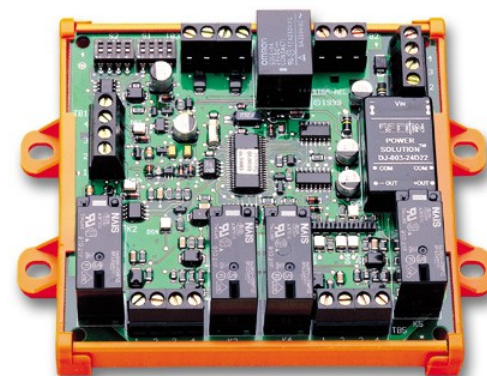
**SIGNATURE
SERIES**



Product Overview

SIGA-UIO Universal Input/Output Modules

- **SIGA-REL Automatic Extinguishing Agent Releasing Module**
- **SIGA-MDM Voice Messaging Module**
- **SIGA-MAB Universal Class A/B Module**
- **SIGA-MCC1, -MCC2, & -MCT2 Input Modules**
- **SIGA-MCR Control Relay Module**
- **SIGA-MCCR Polarity Reversal Relay Module**



SIGA-REL



SIGA-UIO2R & -MDMs

Signature Series Detectors and Bases

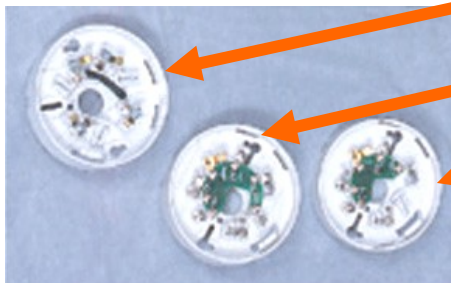


- **6 Types of Detectors**

- SIGA-IPHS (4D Detector)
- SIGA-PHS
- SIGA-PS
- SIGA-IS
- SIGA-HFS
- SIGA-HRS

- **3 Types of Bases**

- SIGA-SB
- SIGA-RB
- SIGA-IB



Multisensor Detectors

- Fixed Temperature Heat Detector
- Fixed temp./ROR Heat Detector
- Ionization Detector
- Photoelectric Detector
- Combination Photo/Heat Detector
- Combination Photo/Ion/Heat Detector - *The 4D Detector*





Signature Series Modules and Accessories

- **Sounder Base**
 - **SIGA-AB4**
- **Programming Tool**
 - **SIGA-PRO**
- **Detector Guard**
 - **SIGA-DG**



SIGA-DG





Signature Series Modules and Accessories



SIGA Modules



SIGA-UIO2R

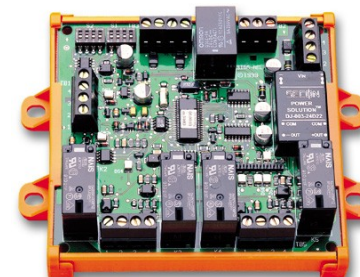


SIGA-AA30



SIGA-270

- **SIGA Modules including:**
 - SIGA-REL
 - SIGA-270
 - SIGA-UIO2R
 - SIGA-CT2
- **SIGA Amplifiers**
 - SIGA-AA30
 - SIGA-AA50
- **SIGA Auxiliary Power Supplies**
 - SIGA-APS



SIGA-REL



SIGA-APS



The Signature System Delivers...

- **Multisensor Performance**
- **Distributed Intelligence**
- **Differential Sensing**
- **Reduced Installation Cost**
- **Reduced Maintenance Cost**
- **Reliability and Stability**
- **Attractive Appearance**



Multisensor Performance



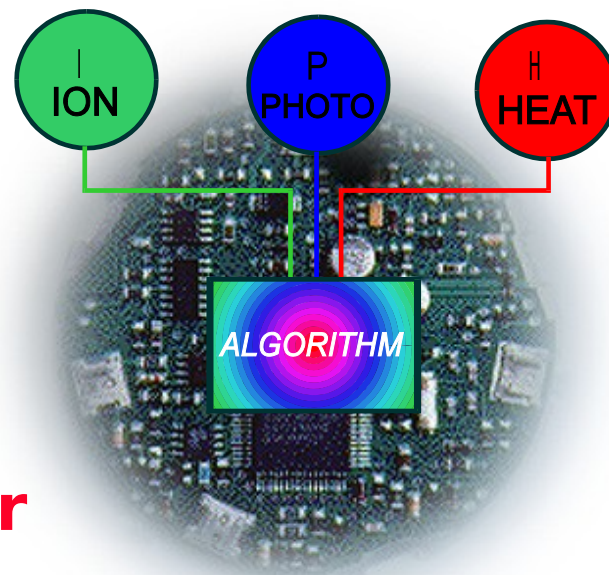
4D Power

- Exceeds 3 side-by-side detectors
- Not just simple “OR” logic
- More than “ANDing” logic
- $4D\ Power > |I| + |P| + |H|$

Multisensor Performance

Multisensor
+ Microprocessor
+ Algorithms

= "ADVANCED REASONING"
Power



**Unwanted Alarms Are
Inhibited**



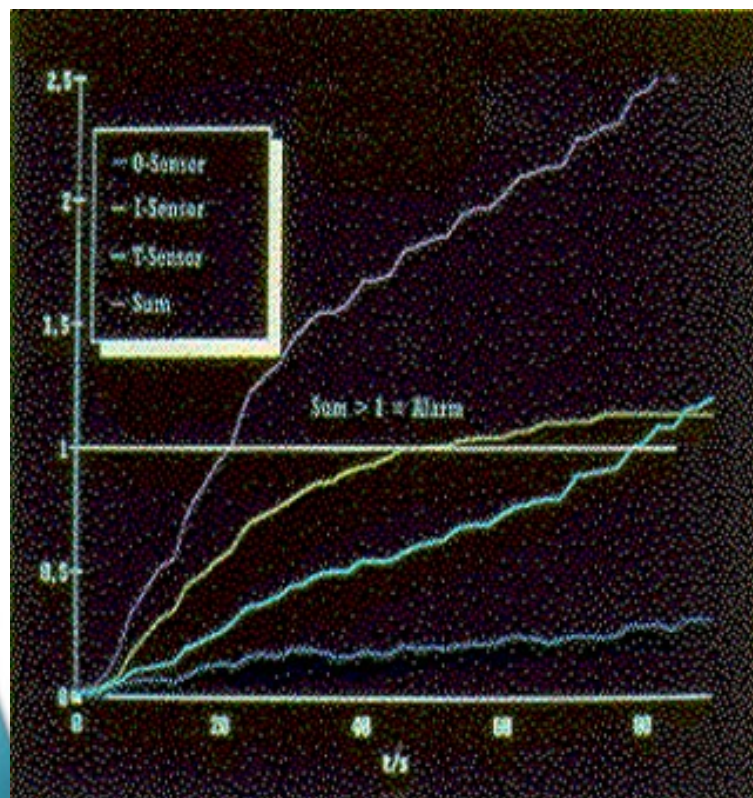
Multisensor Performance

- 4D can 'smell' the invisible **ION**
- 4D can 'see' the visible **PHOTO**
- 4D can 'feel' the fire's **HEAT**
- 4D analyzes resultant with respect to **TIME**



Multisensor Detector is the Optimum Choice

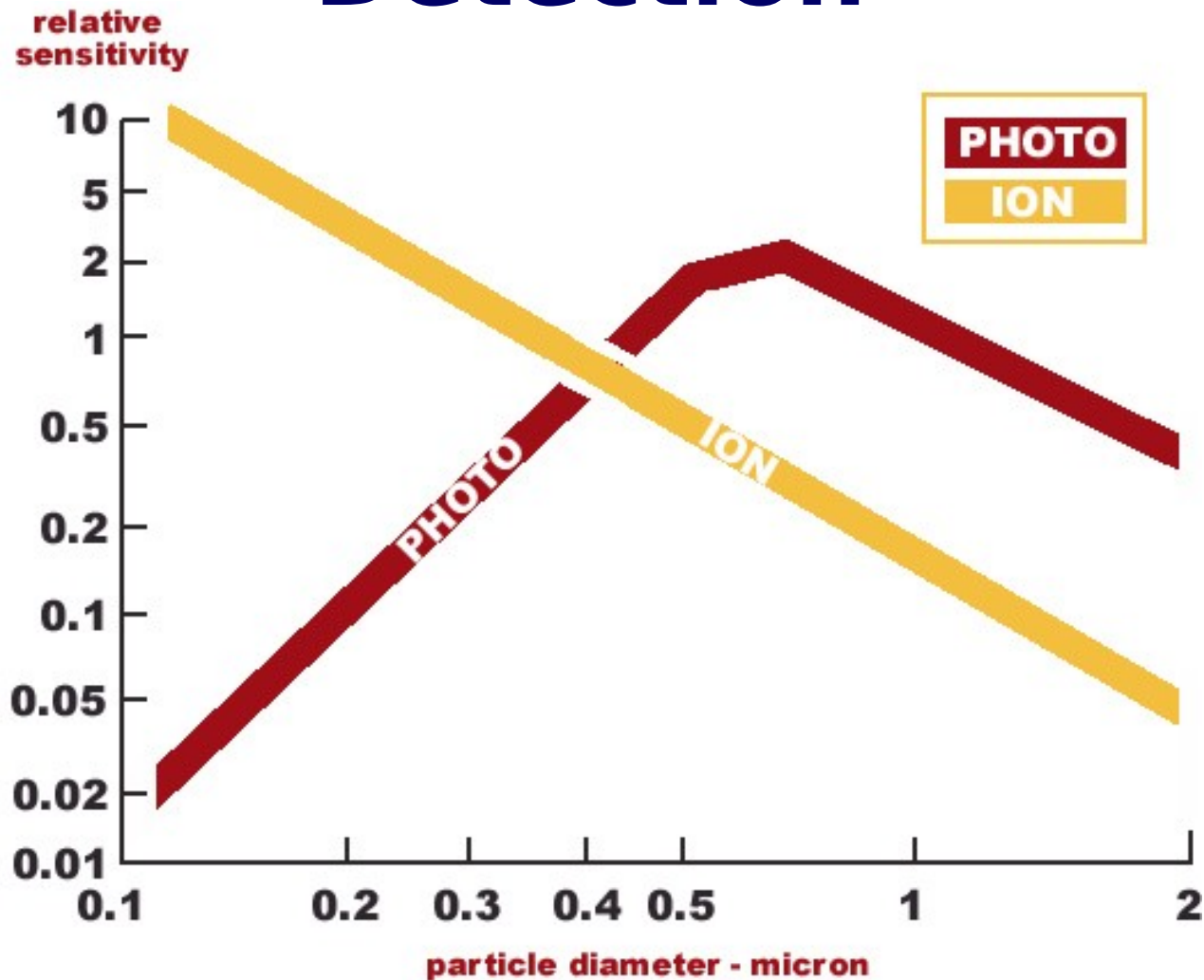
Multisensor Performance



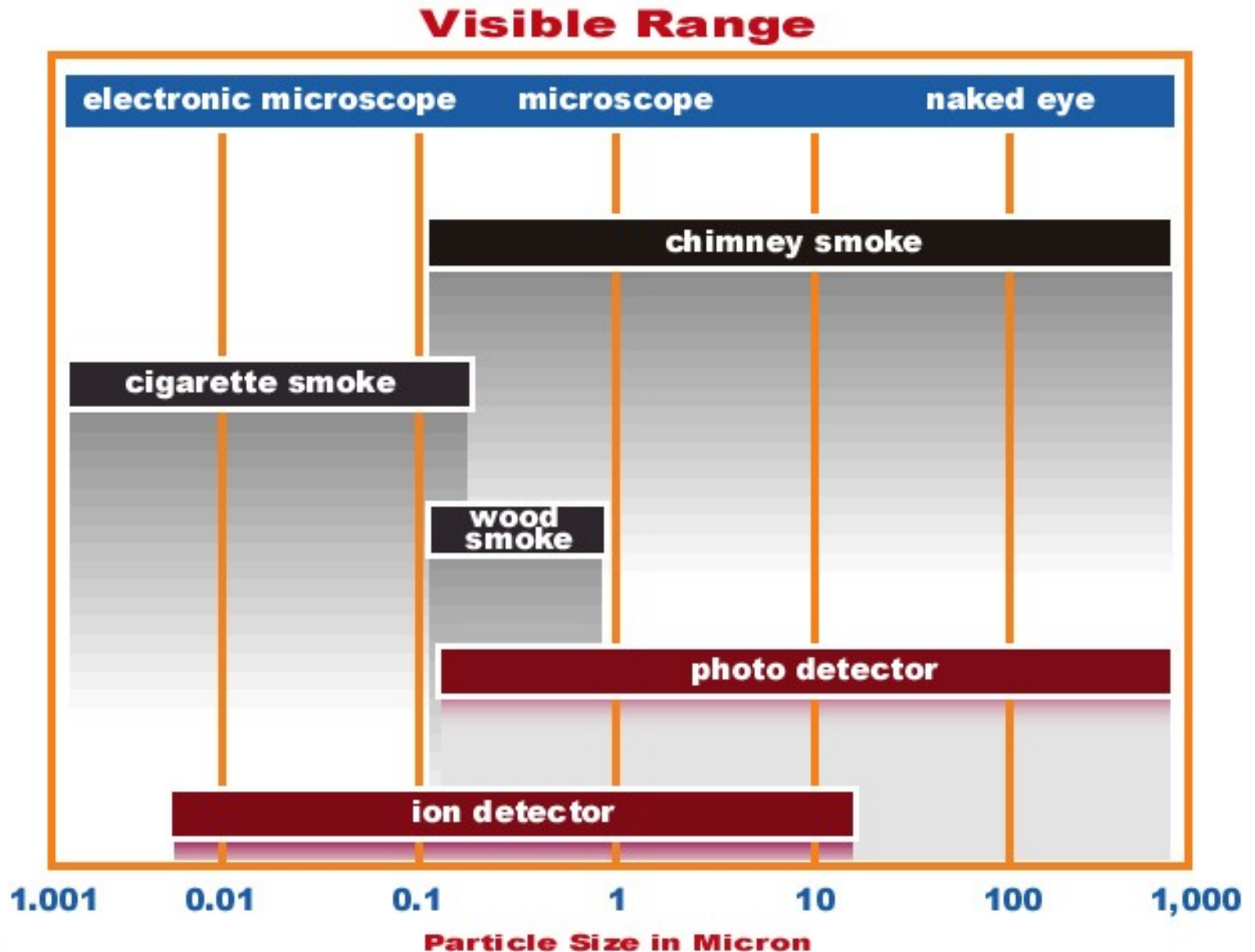
**Multisensor Detector
= Earlier Warning**

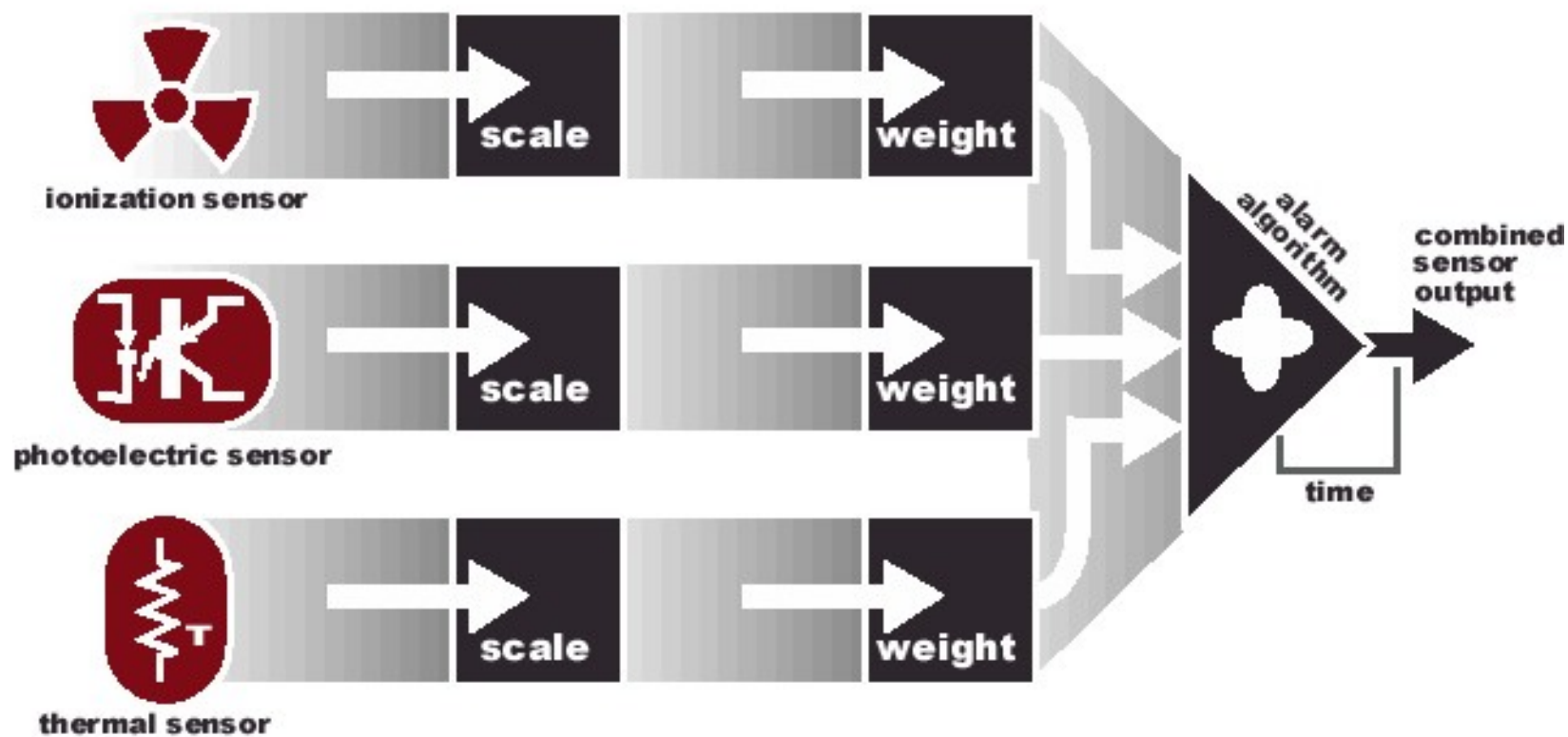
- Fastest response to fire conditions in the industry

Relative Sensitivities of Detection



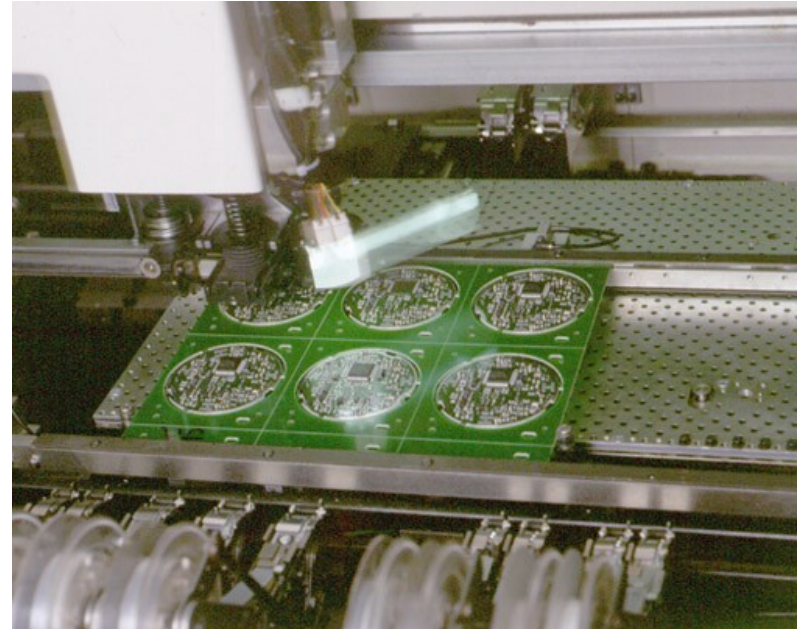
Visibility of Particles





Distributed Intelligence

- Microprocessor-based
- Decision making at the device level
- Device level programming & history



Reduced Total System Response Time

Distributed Intelligence

- Detectors (vs. sensors) can **SENSE** and **DETECT** and make the alarm **DECISION**
- More power reserves for Controllers and Panel



*Microprocessor In Every
Device*

Distributed Intelligence

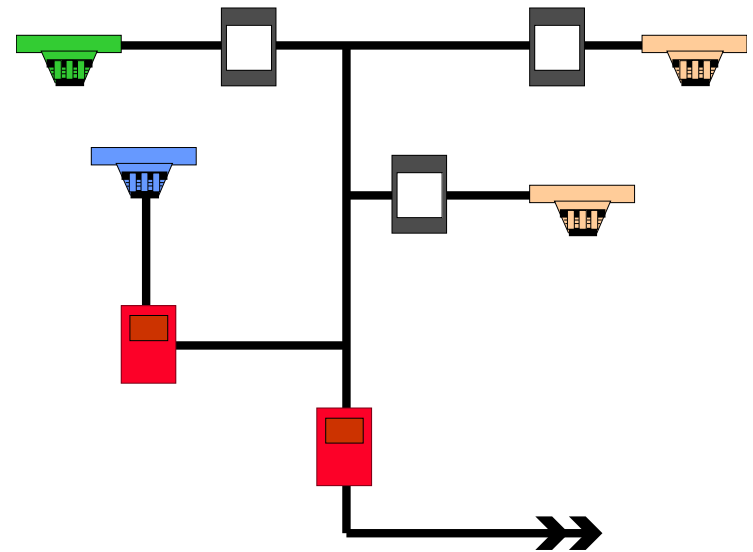
- Allows decreased data communication baud rate
- “Broadcast” polling protocol
 - panel responds only to devices who have something new to report or have changed their state
- Ensures faster loop response (750 msec or less)



*Result: Improved Data
Communications
Less Wiring Restriction*

Distributed Intelligence

- Uses existing building wire
- Twisted and/or shielded not required
- Up to 124 'T'-tap circuits
- Eliminates "RING TONE" riser

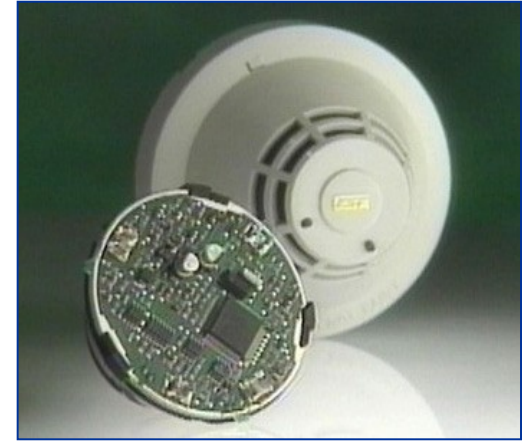


Less Wiring Restriction = Reduced Installation Cost



Distributed Intelligence

- **Pre-Alarm output by Detector**
- **Alternate Alarm Sensitivity by Detector**
- **Automatic Re-addressing of swapped devices**
- **Detector Stand-alone mode**



Outstanding Reliability!

Differential Sensing



- The alarm decision is made by each Signature Series detector based on changing environmental conditions - *not a fixed alarm threshold*
- Detector sensitivity never drifts

Greater False Alarm Immunity!



Environmental Timeline



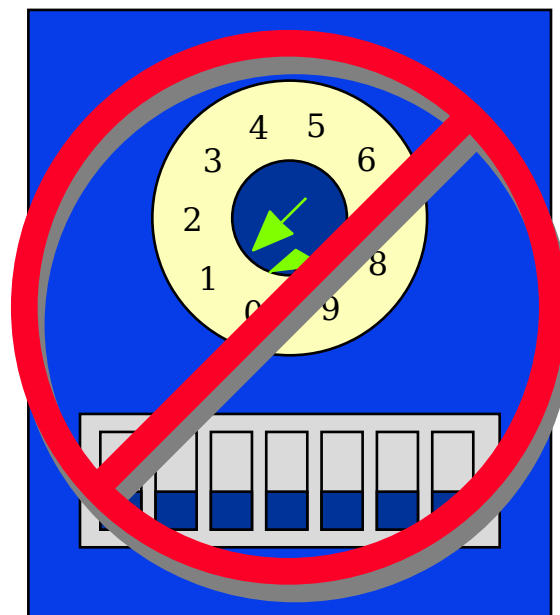
- Every 2 seconds the sensor values are read and compared to the reference value. The detector decides whether there is an alarm condition present.
- Every 8 minutes the reference algorithm is updated with the current ambient value.
- Every 60 minutes the detector updates the long-term smoke average with the current ambient value.

***Never a False Alarm from a
Dirty Signature Series
Detector***

Reduced Installation Cost

Electronic Addressing

- Automatic addressing by loop controller
- No dip switches; no jumpers, no rotary address dials
- Less installation time; less error prone




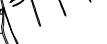
Less Installation Time = Less Costs

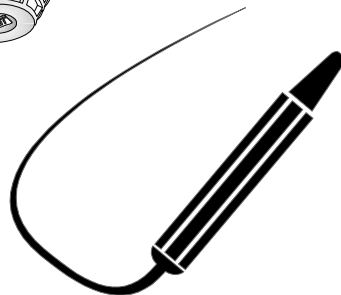
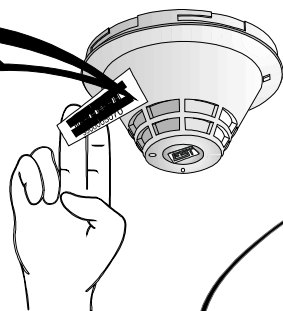
Reduced Installation Cost

SIGA-SCAN Bar Code Scanning Option


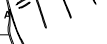
- Eliminates manual keyboard entry
- User friendly, easy data entry
- Serial Number Log Book provides easy device management

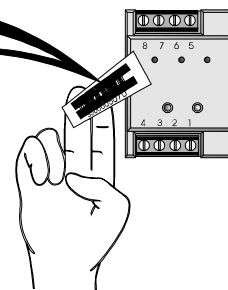
Detector Serial Number Worksheet

0101		LOCATION
0102		LOCATION
0103	Apply	LOCATION
0104	Apply S/N Label Here	LOCATION



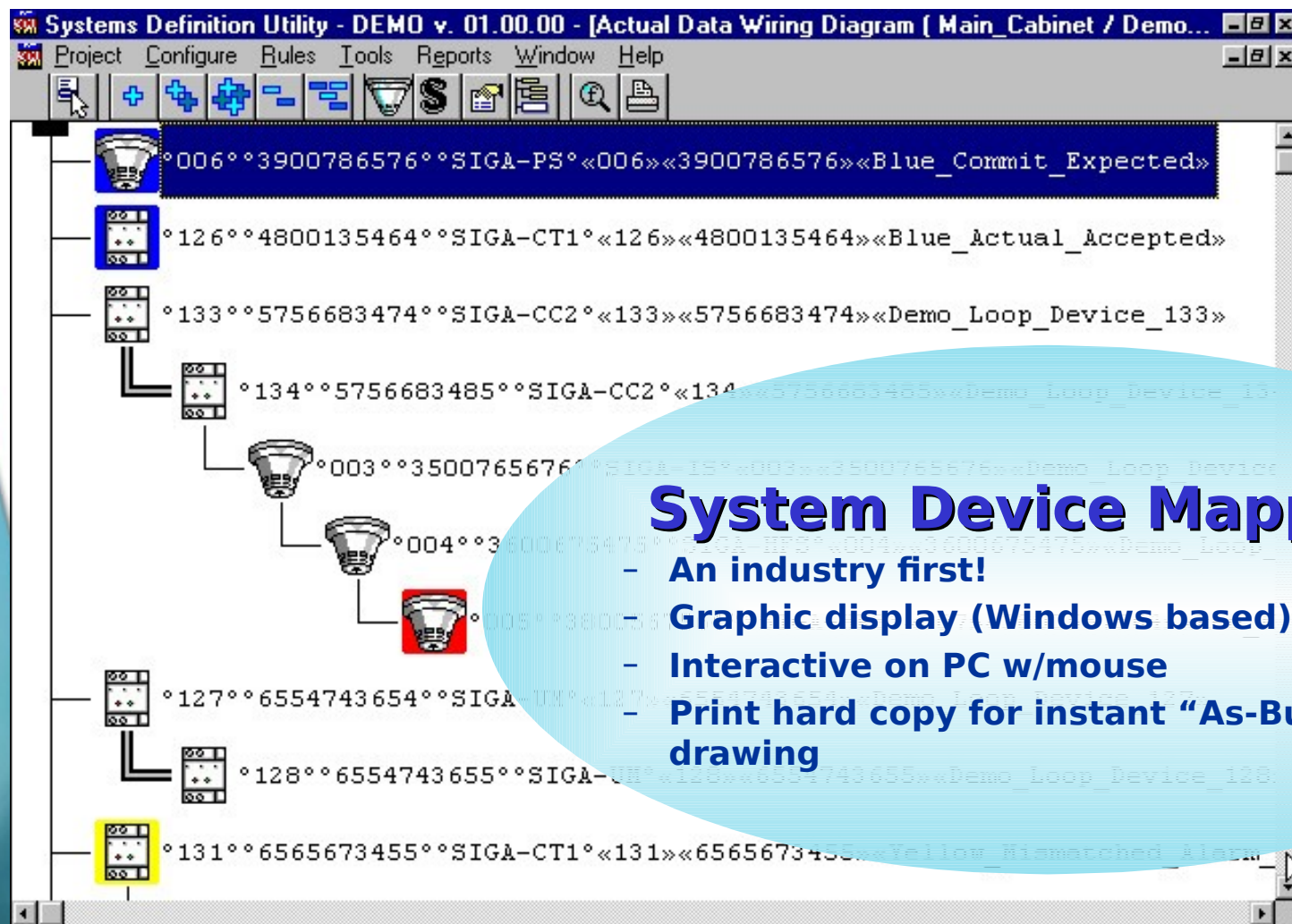
Module Serial Number Worksheet

0201		LOCATION
0202		LOCATION
0203	Apply	LOCATION
0204	Apply S/N Label Here	LOCATION





Reduced Installation Cost



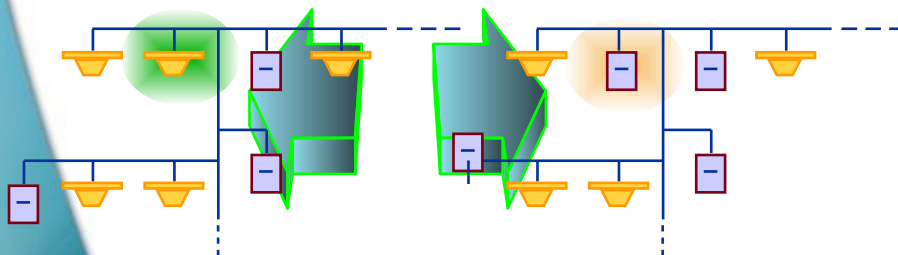
System Device Mapping

- An industry first!
- Graphic display (Windows based)
- Interactive on PC w/mouse
- Print hard copy for instant "As-Built" drawing

Reduced Installation Cost

Mapping Provides Real Time “COMPARE” Feature

- **Simultaneous comparison of all device parameters**
- **In-depth means for validating changes; ACTUAL vs. EXPECTED**
- **Excellent trouble-shooting tool**



Systems Definition Utility - DEMO v. 01.00.00 - [Actual Data Wiring Diagram (Main Cabinet / Demo...)]

Project Configure Rules Tools Reports Window Help

°006°°3900786576°°SIGA-PS°°006°°3900786576°°Blue_Commit_Expected»

°126°°4800°°Actual_Accepted»

°133°°5756°°pop_Device_133»

°134°°demo_Loop_Device_13-

»°°Demo_Loop_Device

675475°°Demo_Loop_-

°3800567564°°Red_M

pop_Device_127°°

no_Loop_Device_128:

°127°°6554°°

°128°°

°131°°6565673455°°SIGA-CT1°°131°°6565673455°°Yellow_Mismatched_Alarm-

Actual vs. Expected Data

Last Action: Data Uploaded

Device Label Red_Mismatched_Device

Device Type HEAT

	Actual Data	Expected Data
Designation	Sensor	Sensor
Device Address	5	5
Serial Number	3800567564	3800567564
Model	SIGA-HRS	SIGA-IS
Base	Relay Base or remote	Relay Base or remote
Alarm Verify	None	None
Alt Alarm Verify	None	None
Sensitivity		
Alt Sensitivity		
Pre Alarm	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Accept Actual Commit Expected

Reduced Installation Cost



System Verification and Troubleshooting

- **Industry First: Ground Fault Detection By Zone**
- **Terminal screws up front and accessible**



Reduced Installation Cost

More Savings!

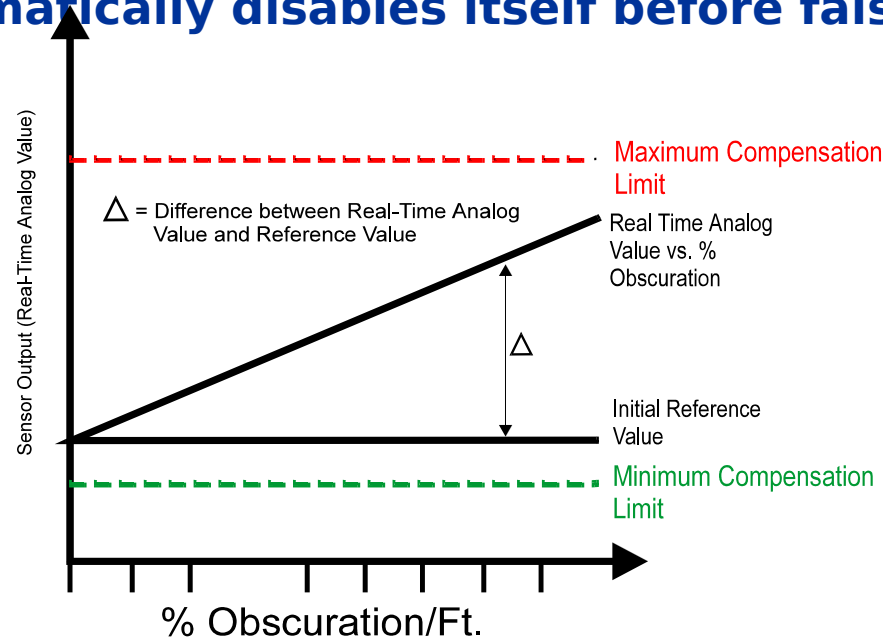
- 1-gang Multifunction Modules
- High Velocity Detector Ratings
- 70 foot Heat Detector Spacing
- Multiple Smoke Detector Bases
- Intelligent Pull Stations
- Intelligent UIO Modules





Reduced Maintenance Cost

- **Environmental Compensation**
 - Wide 'float range' increases time between cleaning
- **Dual Maintenance Alert/Trouble**
 - 1. First there is an **ALERT** message
 - 2. If ignored, there is a **TROUBLE** message
 - 3. Automatically disables itself before false alarm

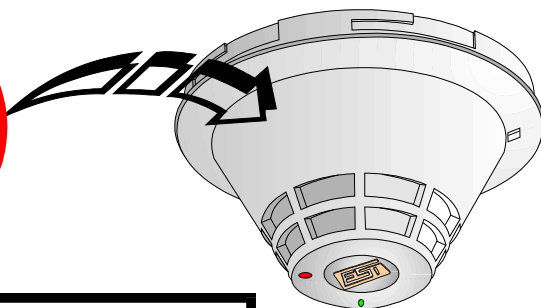




Reduced Maintenance Cost

UL Listed for NFPA 72 Sensitivity Measurements

- Obscuration values presented in % per foot
- No external sensitivity measurements required
- No sensitivity reports required



Notbook Item 6005-206
002 774800
P/N: 002 774800
N/C: 002 245000
T/N: 002 450000

UL Underwriters Laboratories Inc.®

G.S. Building Systems
6411 Parkland Dr.
Sarasota, FL 34234
Our Reference: S853

Subject: Field Sensitivity Verification For Models
SIGA-IPHS, -PHS, -PS, and -IS Smoke Detectors

This letter will serve to confirm that the subject models meet the sensitivity testing requirements of Par. 7-3.2.1 of NFPA 72 without the need for external devices. These detectors utilize a supervised microprocessor that is capable of monitoring the sensitivity of the detector. Our testing verified that if the sensitivity of the detector shifts excessively, a trouble signal is sent to the control panel.

Please let me know if you need any additional information.

Very truly yours,

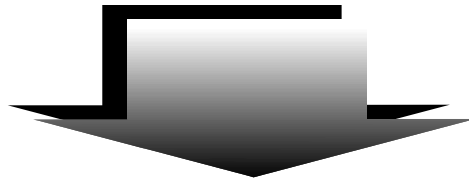
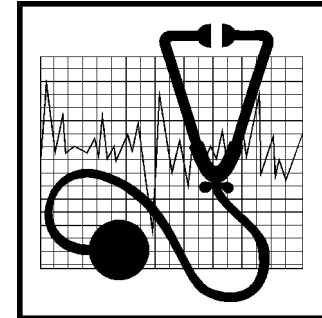
Engineering Group Leader
Engineering Services, 417A
[Signature]
JLP:bk
July/31pars.bk

Architectural organization
electrical, plumbing, and
mechanical services

Reduced Maintenance Cost

Continuous Self-Diagnostics

- ID of defective device



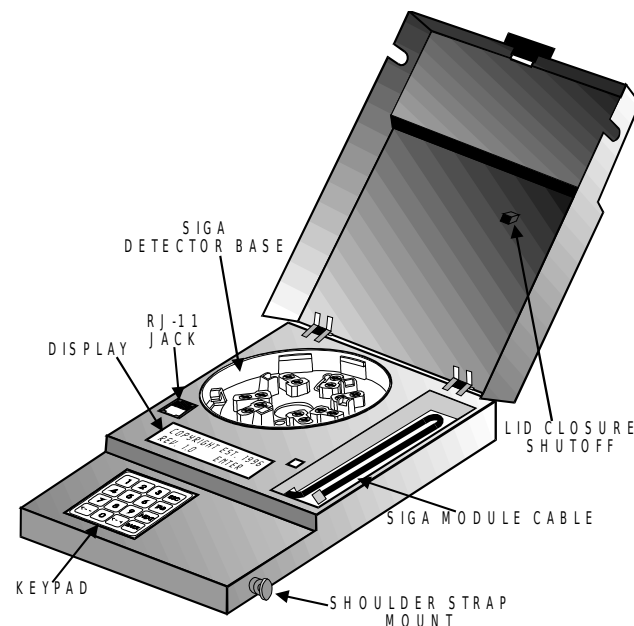
**REDUCED
MAINTENANCE**

Reduced Maintenance Cost

SIGA-PRO Service Tool

Program Signature Devices

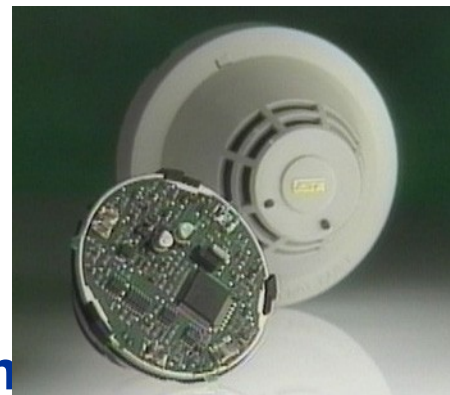
- Quick access to valuable diagnostic information
- Read Signature Device Trouble Logs
- Write Maintenance Dates to Signature Devices



Reduced Maintenance Cost

Historic Log Stored In Device's Non-volatile Memory

- Manufactured date, hours operated, last maintenance date
- Manufactured 'birth' values
- Present detector sensitivity values
- Present environmental compensation



When?

Who?

Where?

Why?

What?

Reduced Maintenance Cost

Historic Log Retains:

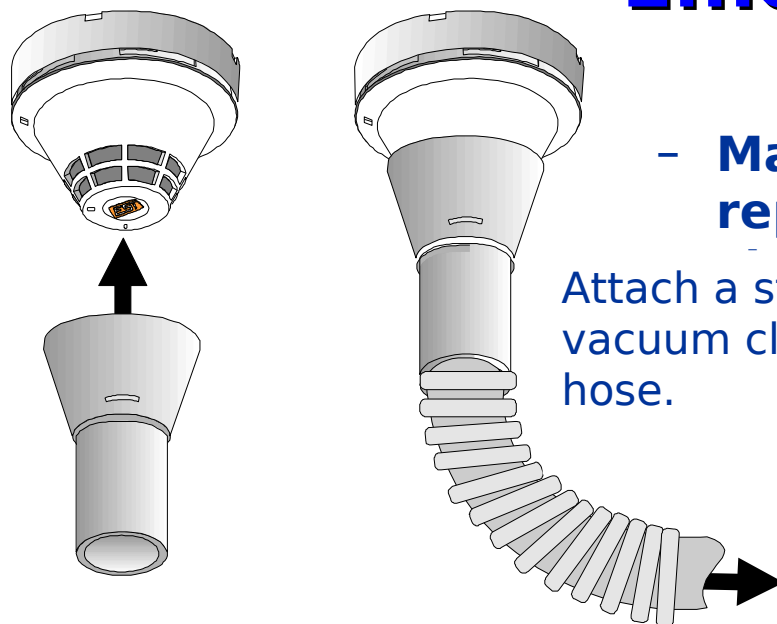
- Device serial number, address, type (personality)
- Total number of alarms and troubles
- Analog signal pattern (fire signature) at last alarm



Reduced Maintenance Cost

Efficient Detector Cleaning

- Mapping generates report to confirm group



Turn on the vacuum and the vortex action removes loose dust particles quickly and easily. No need to disassemble the device.

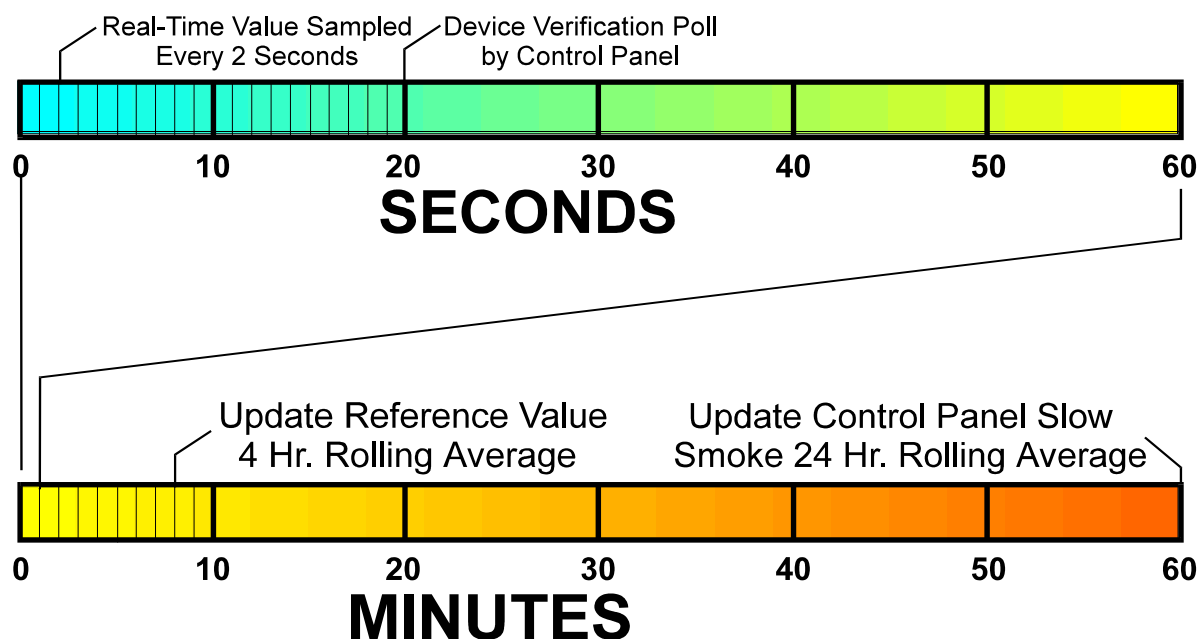
Reliability and Stability

Advanced Environmental Compensation

- Two types: fast 4 hour + long term 24 hour compensation

'PRE-ALARM' Setting

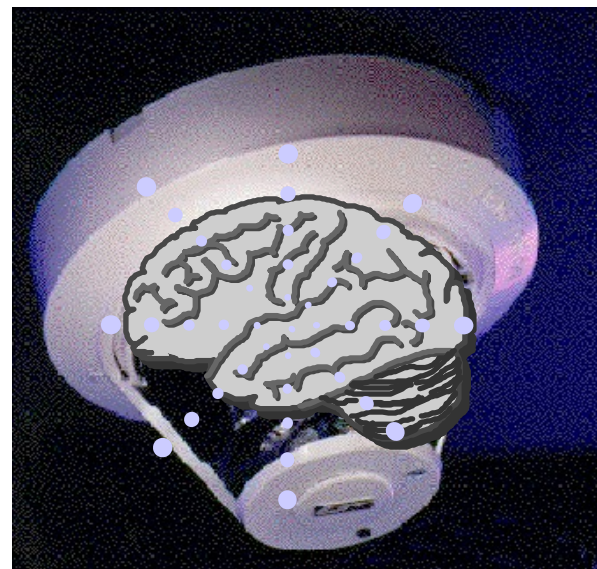
- 75 percent of 'ALARM' point



Reliability and Stability

Standalone Operating Mode = Enhanced Survivability

- A product of Distributed Intelligence
- All devices can still enter alarm; relay bases operate
- Device “personality”, programmed settings, and “learned” environment remain intact
- Standalone capability provides complete system redundancy



Reliability and Stability

- **Self-supervised Internal Circuits**
- **Electronics-free Detector Base**
- **Gold Plated Contacts**
- **Detector and Base Dust Cover**
- **ISO 9000 Registration**



Attractive Appearance

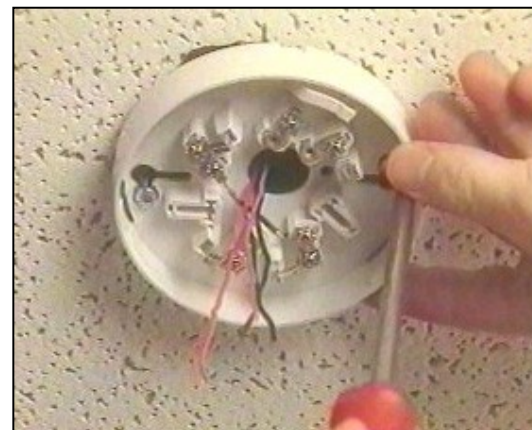
- **Attractive, Uniform Appearance**
- **Sleek, Low-profile Design**
- **Dual Status LEDs**
 - **Flashing GREEN:** 'normal' polling; less distraction for occupants
 - **Flashing RED:** 'alarm' state
 - **Steady RED and GREEN:** 'alarm - standalone mode'





Advantages of the Signature Series

- **Increased Sensitivity to real fire signatures**
- **Greater false alarm immunity**
- **Reduced Installation Cost**
 - Less Stringent Wiring Requirements
 - Forgiving Circuit Topologies
- **Reduced Maintenance Cost**
 - Circuit Mapping
 - Device Resident History Logs
 - Device Level Diagnostics





SIGNATURE SERIES



**THE ADVANTAGE in Early
Warning Fire Detection
Systems!**